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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,530	08/05/2003	Hiroyuki Saito	03500.017475	5409

5514 7590 06/27/2005

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EXAMINER

HSIEH, SHIH WEN

ART UNIT PAPER NUMBER

2861

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/633,530

Applicant(s)

SAITO ET AL.

Examiner

Shih-wen Hsieh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-19 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 20, 21 and 26-31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10-24-03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

2. The disclosure is objected to because of the following informalities:  
  
Tube pump portion 610 being mentioned a number of times in the specification, however, 610 is not found in any of the drawings. Please indicate numeral 610 in proper drawing(s).

***Claim Objections***

3. Claims 24-26, 28 and 31 are objected to because of the following informalities:  
  
The followings are the corrections of lack of antecedent basis minor problem:  
  
In regard to:  
  
Claim 24:  
  
Line 2, please change "in the radial direction" into "in a radial direction".  
  
Claim 25:

Line 5, please change "during the passage" into "during a passage".

Claim 26:

Line 2, please change "the relative distances" into "relative distances".

Claim 28:

Line 3, please change "the biasing force" into "a biasing force".

Claim 31:

Line 2, please change "the same thickness" into "same thickness".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 16-19 and 22-25 are rejected under 35 U.S.C. 103(a) as being obvious over Saito (US Pat. No. 6,612,682 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2). Saito teaches a pressure generating pump (M5100, fig. 19), which has the same feature as that proposed by the instant application.

In regard to:

Claim 16:

A discharge recovering apparatus for recovering and maintaining the ink discharging performance of recording means for discharging ink, comprising:

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a cap (M 5001, fig. 12) for covering the recording means (H1100, fig. 8), refer to col. 12, lines 57-64;

a tube (M5019, fig. 19) connected to said cap, said tube being disposed along an arcuate guide portion (M5022, fig. 19), refer to col. 13, lines 6-10; and lines 39-40;

a pressing roller (M5018, fig. 19) for squeezing said tube, refer to col. 23, lines 15-17;

a rotary member (M5020, fig. 19) to which said pressing roller is rotatably journaled, refer to col. 23, lines 8-17; and

a supporting member (5021, fig. 19) to which said rotary member is rotatably journaled, refer to col. 23, lines 6-11,

wherein said tube (M5019), said pressing roller (M5018), said rotary member (M5020) and said supporting member (M5021) are assembled to thereby form a pump unit (M5100).

The device of Saito DIFFERS from claim 16 in that it does not teach:

the pump unit is separable from said the guide portion in the state form of said pump unit.

From the discussions above, the pump (M5100) has a pump tube (M5019). Similarly, the cap (M5001) has cap tube (M5009, fig. 11), and the cap tube is connected to the pump tube (col. 13, lines 39-40). Fig. 19 also shows a joint (M5023) connected to the pump tube (M5019, col. 23, lines 21-23).

Based on the immediate above discussion, and figs. 19 and 20, it would have been an obvious matter that the pump unit (M5100) is separable from the guide portion

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(M5022) in the form of a pump unit, and when using the pump unit, it is only a matter of connecting the pump tube of the pump unit to the cap tube through the pump joint (although not mentioned in Saito's reference, however, to a skilled one in the art, such joint is designed for such purpose).

Claim 17:

An ink jet recording apparatus for discharging ink from recording means to a recording material to thereby effect recording, comprising:

a cap for covering the recording means;

a tube connected to said cap, said tube being disposed along an arcuate guide portion;

a pressing roller for squeezing said tube,

a rotary member to which said pressing roller is rotatably journaled; and

a supporting member to which said rotary member is rotatably journaled,

wherein said tube, said pressing roller, said rotary member and said supporting member are assembled to thereby form a pump unit, and are separable from the guide portion in the state form of said pump unit.

Rejection:

This claim has same features as those in claim 16, and is rejected on the basis as set forth for claim 16 discussed above.

Claim 18:

Saito further teaches:

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wherein said supporting member is removably mounted on a guide member forming said guide portion, and at least one of said guide member and said supporting member is formed of a material having slidability.

Rejection:

This claim is rejected on the basis as set forth for claims 16 and 17 discussed above. Also, the guide (M5022) has a semicylindrical inner wall (col. 23, lines 1-6), and the background of the guide (not numbered in figs. 19 and 20) having the semicylindrical inner wall can be seen as a guide member or can be called as a pump base (a number of references use this term) to which the removably pump unit is detachably attached.

Claim 19:

Saito further teaches:

wherein said pump unit comprises a pump gear (M5130) for transmitting a rotational force to said rotary member, refer to col. 13, lines 24-28.

Claim 22:

Saito further teaches:

wherein said pump unit comprises a joint portion (M5023) for connecting said tube to an external route, refer to col. 13, lines 39-40.

Claim 23:

wherein said joint portion is formed integrally with said supporting member.

Rejection:



Refer to fig. 19, since Saito teaches a joint member (col. 23, lines 21-23), therefore its location carries less patentable weight.

Claim 24:

Saito further teaches:

wherein said pressing roller is held to permit movement in the radial direction thereof relative to said rotary member, said pressing roller is radially outwardly moved by the rotation of said rotary member in one direction to thereby assume a tube pressing state, and said pressing roller is radially inwardly moved by the rotation of said rotary member in the other direction to thereby release the tube pressing state, refer to col. 23, lines 24-57 and figs. 19 and 20.

Claim 25:

Saito further teaches:

a biasing member (M5025, fig. 19), wherein on a movement route of said pressing roller, said biasing member biases, upon contact with said pressing roller, said pressing roller in a direction opposite to a movement direction by said rotary member, and said biasing member is retractable during the passage of said pressing roller, refer to col. 23, lines 17-21.

***Allowable Subject Matter***

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6. Claims 20, 21 and 26-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

In regard to:

Claims 20 and 21:

The primary reason for the allowance of claims 20 and 21 is the inclusion of the limitation of wherein said pump unit comprises a fixing member for fixing said tube. It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claims 26-31:

The primary reason for the allowance of claims 26-31 is the inclusion of the limitation of wherein the relative distances between said pressing roller and the guide portion are made common and a tube differing in inner diameter is mounted to thereby form a tube pump differing in output characteristics. It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**SHIH-WEN HSIEH**  
**PRIMARY EXAMINER**

  
Shih-wen Hsieh  
Primary Examiner  
Art Unit 2861

SWH

  
June 22, 2005